

## **Abstract**

Deep Eutectic solvents are gaining interest in various applications due to their tuneable properties and affordable preparation cost. Developing low cost DESs is vital for some potential industrial applications. The current research project is about the “preparation and physiochemical characterization of various binary liquids as extraction solvents”. Binary liquids are the deep eutectic solvents (locally called DES). The DES is prepared by the combination of Hydrogen bond acceptor and Hydrogen bond donors, following five combinations were prepared for the physiochemical analysis ChCl/urea, ChCl/Ethylene glycol, Fructose/urea, Glucose/citric acid, ChCl/glycerol. By preparing the sample of DES the combinations of acids are divided by a constant value through their molar weight. The sample of DES was put on the hot plate for require time by maintained the suitable temperature for the purpose of continuous rotating. After preparing the samples of DES will be filtered and dilute it with the distilled water. Note that the physiochemical properties of DES such as pH’ viscosity’ density’ polarity & the conductivity. After sensing the characterization of DES will be detected from Fourier Transform Infrared Spectrometer (FTIR) and results will be obtained present in the DES.